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| 22879 7590 01/07/2011 HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 FORT COLLINS, CO 80528 | | | EXAMINER ELAHEE, MD S | |
| | | | ART UNIT 2614 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

Office Action Summary

Application No.

10/696,839

Applicant(s)

YACOB ET AL.

Examiner

MD S. ELAHEE

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-846)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is responsive to an amendment filed on 11/09/2010. Claims 1-25 are pending.

Response to Arguments

2. Applicant's arguments filed on 11/09/2010 have been fully considered but they are not persuasive because of the following:

Regarding claim 1, the applicant argues on pages 7-8 that neither Shambaugh nor Moore teach multiple interactive voice response (IVR) algorithms. Examiner respectfully disagrees with argument. In col.3, lines 24-25, col.4, lines 25-28, 41-67, Shambaugh teaches that speech-to-text conversion process is performed by an interactive voice response (IVR) algorithm. It is because, the system of Shambaugh has interacted with the contact using speech recognition technology/algorithm (see). The only missing element in Shambaugh is that this speech-to-text conversion process applies multiple interactive voice response (IVR) algorithms. In other word, Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple speech recognition algorithms. In col.25, lines 38-43, Moore teaches that the speech-to-text conversion process applies speech recognition algorithms [i.e., interactive voice response algorithms].

The applicant further argues on pages 8-12 that Shambaugh does not teach connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed. It is because Shambaugh teaches connecting the call contact to a live agent only when the call contact provides a response for which none of the scripts can provide an answer. Examiner respectfully disagrees with argument. In col.4, lines 12-23, 58, col.7, lines 30-34, Shambaugh teaches that after a predetermined portion of dialog with the user has been completed, when the system does not understand the user's response, the system transfer the call to a live agent. It clearly means that Shambaugh does teach connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed. Furthermore, the applicant did not claim which particular portion of the out-calling dialog is predetermined that needs to be completed before connecting the call with the contact.

Thus, the rejection of the claim will remain. The rejection of the claims 16, 17, 21 and 24 will remain for the same reasons as discussed above with respect to claim 1.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 17-20 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that

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the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 17, the limitation "A medium having instructions.....to perform the operations" was not disclosed in the original specification.

Claims 18-20 are rejected because they depend on the rejected claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 4, 6-10, 13-17, 19-21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. (U.S. Patent No. 6,771,746) in view of Moore et al. (U.S. Patent No. 7,382,868).

Regarding claims 1, 17, 21, with respect to Figures 2-6, Shambaugh teaches a method for managing telephone calls, comprising:

calling a contact (fig.4; col.7, lines 22-25);

Shambaugh further teaches presenting the contact with a predetermined out-calling dialog (col.4, lines 41-67, col.7, lines 25-30);

Shambaugh further teaches translating the contact's vocal responses to the dialog into textual words (see col.4, lines 25-26, valid responses from the call contact to earlier scripts has been converted to textual representations.) using selected speech recognition technology such as speech-to-text conversion (col.3, lines 24-25, 57-60, col.4, lines 25-28, 41-67, col.5, lines 59-62);

Shambaugh further teaches that speech-to-text conversion process is performed by an interactive voice response (IVR) algorithm. It is because, the system of Shambaugh has interacted with the contact using speech recognition technology/algorithm (see col.3, lines 24-25, col.4, lines 25-28, 41-67). However, Shambaugh does not specifically teach that this speech-to-

text conversion process applies multiple interactive voice response (IVR) algorithms. In other word, Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple speech recognition algorithms. Moore teaches that the speech-to-text conversion process applies speech recognition algorithms [i.e., interactive voice response algorithms] (col.25, lines 38-43). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh to incorporate the feature of applying speech recognition algorithms by speech-to-text conversion process in Shambaugh's invention as taught by Moore. The motivation for the modification is to do so in order to convert user's utterance into text using multiple speech recognition algorithms.

Shambaugh further teaches connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (col.4, lines 12-23, 58, col.7, lines 30-34);

Shambaugh further teaches providing the operator with the textual words (col.4, lines 12-28, col.7, lines 30-34).

Regarding claims 4, 25, Shambaugh, as applied to claims 1 and 24, teaches that selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact (col.4, lines 41-67, col.7, lines 25-30).

Regarding claims 6, 19, Shambaugh teaches continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (col.4, lines 12-19).

Regarding claims 7, 20, 23, Shambaugh teaches determining whether the contact is interested in the out-calling dialog and wherein connecting includes, connecting the contact to the operator, if the contact is interested (col.4, lines 41-67, col.7, lines 25-30).

Regarding claim 8, Shambaugh teaches applying a set of heuristics to the textual words (col.4, lines 41-67, col.7, lines 25-30).

Regarding claim 9, Shambaugh teaches matching the textual words with predetermined keywords associated with interest (col.4, lines 41-67, col.7, lines 25-30).

Regarding claim 10, Shambaugh teaches matching the textual words with predetermined keywords associated with disinterest (col.4, lines 41-67, col.7, lines 25-30).

Regarding claim 13, Shambaugh further teaches terminating the call with the contact, if the contact is not interested (col.4, lines 61-67).

Regarding claim 14, Shambaugh teaches performing the translating and determining elements in parallel (col.4, lines 12-28, col.7, lines 25-30).

Regarding claim 15, Shambaugh teaches performing the determining element after the predetermined portion of the out-calling dialog with the contact is completed (col.4, lines 41-67, col.7, lines 25-30).

Claims 16 and 24 are rejected for the same reasons as discussed above with respect to claims 1, 5, 7 and 13.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Merrow et al. (U.S. Patent No. 6,990,179).

Regarding claim 2, Shambaugh in view of Moore does not specifically teach selecting the contact from a set of contacts within a contact database. Merrow teaches selecting the contact from a set of contacts within a contact database (col.2, lines 29-49). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of selecting the contact from a set of contacts within a contact database in Shambaugh's invention in view of Moore's invention as taught by Merrow. The motivation for the modification is to do so in order to contact a potential customer such that a company can be benefitted out of a dealing with the customer.

Regarding claim 3, Shambaugh in view of Moore does not specifically teach classifying the contact as either a person or not a person and terminating the call, if the contact is not a

person. Merrow teaches that classifying the contact as either a person or not a person and terminating the call, if the contact is not a person (abstract; col.2, line 50-col.3, line 40). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of classifying the contact as either a person or not a person and terminating the call, if the contact is not a person in Shambaugh's invention in view of Moore's invention as taught by Merrow. The motivation for the modification is to do so in order to find out whether the system is contacting with a person such that the system can save time not to interact with a machine.

10. Claims 5, 18, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Parolkar et al. (U.S. Patent No. 7,366,285).

Regarding claims 5, 18, 22, Shambaugh teaches storing the contact's vocal responses, textual words, and contact attributes in a contact database (col.3, lines 60-65). However, Shambaugh in view of Moore does not specifically teach providing the operator with access to the contact database. Parolkar teaches providing the operator with access to the contact database (col.3, lines 17-27, 61-67, col.4, lines 1-3). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of providing the operator with access to the contact database in Shambaugh's invention in view of Moore's invention as taught by Parolkar. The motivation for

the modification is to do so in order to retrieve text responses such that the agent can communicate with the user using text messaging technique.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Lau et al. (U.S. Patent No. 6,850,766).

Regarding claim 11, Shambaugh teaches applying a set of heuristics to the textual words (col.4, lines 41-67, col.7, lines 25-30). However, Shambaugh in view of Moore does not specifically teach concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest. Lau teaches concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest (fig.4a; col.5, line 66-col.6, line 28). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest in Shambaugh's invention in view of Moore's invention as taught by Lau. The motivation for the modification is to do so in order to verify the utterance of a user such that the closest correct responses can be achieved for interest.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shambaugh et al. in view of Moore et al. further in view of Kanevsky et al. (U.S. Patent No. 5,774,525).

Claim 12 is rejected for the same reasons as discussed above with respect to claim 11. Furthermore, Shambaugh in view of Moore does not specifically teach associating a score with each heuristic, totaling the scores and concluding that the contact is interested if the total score is above a predetermined threshold. Kanevsky teaches associating a score with each heuristic, totaling the scores and concluding that the contact is interested if the total score is above a predetermined threshold (col.4, lines 39-58, col.5, lines 46-55). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh in view of Moore to incorporate the feature of associating a score with each heuristic, totaling the scores and concluding that the contact is interested if the total score is above a predetermined threshold in Shambaugh's invention in view of Moore's invention as taught by Kanevsky. The motivation for the modification is to do so in order to accurately decide the interest of a user.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MD S. ELAHEE whose telephone number is (571)272-7536. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, FAN TSANG can be reached on (571)272-7547. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MD S ELAHEE/
MD SHAFIUL ALAM ELAHEE
Primary Examiner
Art Unit 2614
January 3, 2011